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1852.	G.M.T. h m		"		"
Nov. 6	11 30	follows Saturn's centre	46·3	South of Saturn's centre	159·6
10	11 32	— — —	217·6	— — —	106·0
11	11 9	— — —	261·5	— — —	89·5
13	10 11	— — —	343·9	— — —	59·1
15	11 30	— — —	409·6	— — —	25·4
16	10 31	— — —	447·4	— — —	7·6
18	10 25	— — —	507·6	North — —	26·7
19	10 27	— — —	517·9	— — —	46·4
20	10 36	— — —	551·2	— — —	68·3
27	10 33	— — —	589·3	— — —	163·2
29	10 39	— — —	568·9	— — —	186·5
Dec. 3	10 6	— — —	485·8	— — —	217·4
13	10 18	— — —	113·8	— — —	195·4
15	9 29	— — —	28·8	— — —	175·7
27	8 30	precedes — —	431·7	— — —	6·5

Measures of the Exterior Diameter of the Exterior Ring of Saturn and of the Polar and Equatoreal Diameters of his Disk.

Diameter of Ring.					Equatoreal Diameter.				
1852.	"	No.	Power.	Reduced to Mean Dist. "	1852.	"	No.	Power.	Reduced to Mean Dist. "
Nov. 18	47·4	6	614	40·694	Nov. 19	20·96	3	...	17·990
19	47·14	4	...	40·490	29	20·94	8	...	18·107
29	47·59	7	...	41·152	Dec. 3	19·03	6	...	16·515
Dec. 3	46·70	8	...	40·529	20	20·01	6	...	17·732
20	46·32	5	614	41·046	22	19·29	10	760	17·143
24	45·66	6	760	40·580	24	19·53	7	760	17·409
27	45·55	7	614	40·794	27	19·29	2	614	17·276
			Mean =	40·881				Mean =	17·453

Polar Diameter.

1852.	"	No.	Power.
Nov. 29	19·14	10	...
Dec. 3	17·86	5	...
20	17·67	5	...
22	18·45	9	760
24	17·90	6	760

"The measures of the 3d December were taken under the especial determination *not to be in excess*, and probably I should otherwise have taken them somewhat larger. In several instances I have omitted to record the power, but I presume it would be 760, which I most frequently use when the air is in an average state. Comparing the mean of the five measures of polar diameter with the mean of those taken of the equatoreal diameter on the same days, $e = 0·078764$, or $\frac{1}{12·697}$, *i.e.* the apparent ellipticity, without applying the correction for the present inclination of the axis.

"The measures of the equatoreal diameter and major axis of ring differ considerably from those obtained by Professor Struve at Dorpat. With respect to the ellipticity, I would remark that, without a *perfect* driving motion, it is impossible to measure both diameters of the disk under equal circumstances.

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The polar is perfectly easy, while the equatoreal, from being nearly in the direction of motion, is difficult. My driving motion being here somewhat temporarily fixed up is less steady than at home.

" *Valetta, February* 25, 1853."

Extract of a Letter from Mr. Lassell.

" *Valetta,* 30*th March,* 1853."

" Having concluded my observations here, I beg to hand a series of measurements in position and distance of a number of double stars which I have made, with a view of furnishing to astronomers the means of judging what personal or other equation may be applicable to my micrometrical measurements during my sojourn in this place. All the stars are well known and have been measured before, though of most of them I am ignorant of the results. Some of them are very unequal, and were chosen because they exhibited something like a type of a planet and faint satellite.

" Being all measured by the same observer, with the same telescope and micrometer, in the same place, and nearly at the same epoch, these measures will, I presume, furnish a good standard of comparison of my results with those of other observers.

" They were made, I believe, with neither more nor less care than those of my published observations, except that I paid less attention to accuracy in the *positions* of these stars than in the distances.

" *Measures of Stars made at Valetta for Verification of Measures of Satellites, &c.*

Date.	Star.		Position.	No. of Measures.	Greatest Diff. of Individual Measures.	Magnifying Power.	Distance.	No. of Measures.	Greatest Diff.	Magnifying Power.
1852.							″		″	
Dec. 21	γ Arietis		...	...	...	...	8·84	7	0·67	614
	γ Arietis		...	...	...	...	8·67	7	0·63	760
	ζ Orionis		...	...	...	...	56·84	8	0·84	760
28	Rigel		...	...	...	...	9·28	6	0·52	760
1853.			° ′		° ′					
Jan. 8	γ Androm.	*b, c*	107 51	8	2 28	1027				
		a, b	61 15	3	0 28	1027	10·21	3	0·50	1027
17	γ Androm.	*b, c*	111 35	12	3 14	1027				
		a, b	62 59	4	0 51	1027	11·27	5	0·87	760
	Approximate R.A. h m	P.D. ° ′								
Mar. 12	9 20	81 7	82 0	3	0 39	614	25·60	8	2·30	614
14	9 20	81 7	81 21	9	1 1	614	25·82	9	1·00	614
	*10 24	67 7	154 44	4	0 58	760	14·93	9	0·71	760
	†11 27	72 19	211 13	4	0 51	760	3·34	8	0·35	760
15	8 31	69 46	54 36	6	1 50	760	20·29	8	0·67	760
17	‡8 36	71 16	121 7	6	1 11	760	45·82	8	1·25	760
	§9 49	69 30	83 36	5	0 58	760	31·83	10	0·73	760

* Σ 1442, vi, 7.8

† Σ 1552, iii, 6.7

‡ δ Cancri

§ Σ 1339, viii, 7.8

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